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The Industrial and Statistical Department of a Modern Bank

BUSH TERMINAL BUILDING
130 WEST 42nd STREET, NEW YORK

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The Industrial and Statistical Department of a Modern Bank

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Publication's Department Note

Too often the banker has been stigmatized as a money lender. No stigma need attach to money lending, it is the spirit back of it and the conduct of its supervision either that bring it opprobrium or give it the characteristic of service. Out of the unhappy experience of the post-war period, the banker has been forced into a keen realization of the close inter-dependence of the whole mechanism of modern business. Unless manufacturing and merchandising prosper, the banker's market is necessarily constricted. To help his sales—as well as to conserve his capital—he finds it a good business policy to provide his customers with an advisory service whose purpose it is to point out the accepted methods of successful business management. Business is not conducted on an altruistic basis, nor will it ever be. This life is so organized, however, that what is good for the individual, even from a purely selfish standpoint, is in the long run good also for his fellows. Thus the industrial department of the modern bank, conceived as an aid to banking is proving of incalculable benefit to business.

No one is perhaps better qualified to speak on this development of present-day banking than the author of this article, Mr. F. W. Shibley, vice-president of the Bankers' Trust Company, with which he has been connected since 1920. Previous to that he was for over twenty years an investment banker and broker for his own account, specializing in industrial securities. He did not have the advantage of a college education. What he has learned has been through extensive reading and the practical experience gained from an intensive study of a great variety of industrial operations. He has been, and is still, an indefatigable student of economic conditions as they affect manufacturing and distribution.

Mr. Shibley is a director of the St. Joseph Lead Company, the Utica Knitting Company, American Chicle Company and several other industrial corporations.

THE INDUSTRIAL AND STATISTICAL DEPARTMENT OF A MODERN BANK

In presenting this material, I want to say first that in my opinion, both the accountant and the modern banker speak the same language and are enlisted in the same cause, viz., to make business safer and more efficient.

I desire to tell you briefly what we are doing in the larger banks to help place American industry on a scientific basis, but first I want to say just a few words to you about the artistic feature of your work and mine, for business would be very stupid indeed if we did not bring into it imagination, enthusiasm and the love of skilled craftsmanship so manifest in the fine arts.

I wonder if any of those who have addressed you have told you that cost accounting is a highly developed art, that he who first conceived the Sales Dollar as a measure of operating efficiency possessed the imagination of a poet, and that you who apply it in

your daily work exhibit the trained technique of a skilled musician or a painter. In an address last evening Mr. J. P. Morgan quoted President Lowell of Harvard University as saying, "Business is the oldest of the Arts and the youngest of the Professions.

The business of cost accounting is not generally classed as an art. Few people know very much about it. You are not headliners in the great industrial drama. There is no applause when you succeed in reducing the cost of production a fraction of one percent. You have no hired claque. You work in silence and only an intimate few realize that you exhaust the resources of acquired knowledge and of your imagination in extending the economies of manufacturing processes. You are really doing specialist work of a high order. I, for one, know what you are doing. I appreciate your efforts and applaud the results.

We also are trying to be useful in the work we are doing in the industrial and statistical department of banking.

The commercial banker performs a distinct function in industrial life. He must know intimately every detail of his own particular business, and he should have a general knowledge of the operations of the other units of commerce and industry. He must visualize business as a whole, and then he must be able to analyze business, divide it into its component parts, know how these parts operate as individuals and as parts of co-ordinated unit. So he organizes a statistical department to gather together for him fundamental financial data relating to the various industries, and from these data he has built up a story of each industry which places before him vividly and picturesquely in comparative ratios and graphs, the development of the industry discussed, its attractive features and its weak points, and finally he endeavors to construct from the story so told a yardstick of the industry with which to measure individual units of that industry and judge of their desirability as commercial clients.

He is prompted to undertake such statistical and analytical studies primarily in the interest of his own bank, but inevitably he finds himself in possession of certain general information as to industries that he can pass along to his customers, and thus render them a service.

The industrial and statistical department of a modern bank, therefore, can be made a department capable of giving most valuable service to its customers, and service is a vital attribute of modern banking. It is the essential food, governing growth and development.

Banks had statistical departments before the cataclysm of 1920 and 1921, but in many instances they were not efficiently co-ordinated with the banking department and its chief auxiliary, the credit department. Huge envelopes were filled with statistical data gathered by intelligent men, but the proper use was not made of this basic information.

Perhaps no one was to blame—that point does not matter. A great many millions of dollars were lost and this tremendous loss

induced bankers to intensive thought as to how best to prevent such another calamity, and the industrial and statistical department, united in spirit and purpose, as we now see it functioning in a majority of the great commercial banks, came into being. It is a department with a voice that can make itself heard and which is assured of an attentive audience.

It seems to me inconceivable that with such a department functioning intelligently in a commercial bank, any industrial account will be permitted to go to sleep and get frozen. It requires two sleepers to make a frozen account, and the modern banker has provided himself with a variety of alarm clocks and automatic prodding devices so as to render sleep on his part, at least, impossible.

While studying this department of his business the banker discovered that like every economic development facilitating and serving civilization, business follows closely along natural lines, successful when obedient to natural laws but severely punished when these laws are disobeyed. In short it became manifest to him as it had been to his forefathers for innumerable generations, that there was only one way to do business, whether a man were a farmer or a captain of industry, and only one set of rules to be observed.

Let us see if we can get a picture of that one way, the natural way. The essentials of a manufacturing business, for instance, are:

1. Capital
2. Management
3. Product
4. Plant.

The object of the management is to sell the product manufactured in the plant at such a price as will produce a profit on the invested capital greater than that which could be obtained from the interest returns of gilt-edged investments.

Earnings on invested capital are the measure of success in the actual employment of money in industry.

Earnings on sales are the measure of efficiency in the operation of a business.

How much of the product in dollars can be sold at a profit and where can it be sold? This is the vital question, and it would seem the part of ordinary wisdom that it should be answered prior, rather than subsequent, to the investment of capital in plant facilities.

The simple way to do this is to draw a map of the United States, outlining the several states in blank. In each of these states we set down the volume and dollar value of our sales expectancy. And to the best of our ability we analyze for each of these sales districts, the sales possibilities of the product we propose to make. The success of our manufacturing venture will depend largely on the thoroughness of this sales survey and analysis.

Having reached a satisfactory conclusion as a result of such an intensive study, we find that quite naturally we have collected

the data necessary to properly advise us as to the best point for the location of our plant and the manufacturing capacity required.

Moreover, as a further result of this study, a forecast of sales has been arrived at on which to construct a budget which, when made, defines the limits of expenditures that can be made for materials, labor, superintendence, sales expense, executive management, depreciation, general expenses, etc.

Knowing these limits, a subdivision occurs naturally, and without an atom of force or any great expenditure of gray matter the Sales Dollar leaps into its position in the picture and assumes definite form as the essential basis of management control of operating costs.

All the executive management now has to do is to see that every unit of the Sales Dollar is properly co-ordinated with every other unit and that each is given efficient management direction.

And in order that controllable items shall be properly controlled the cost accountant appears in the picture and assumes the highly important technical duties which are assigned to him.

Here we have the simplest form of control under which a business can be intelligently operated, one which will induce the constant scrutiny of the executive management because it not only will interest, but will fascinate a management.

I have touched briefly on the fact that it is one of the chief functions of the industrial and statistical department of a modern bank to come to an intelligent conception of industries as a whole.

In order to obtain an intelligent conception of anything one must think hard and work hard. Every faculty of the mind must be brought into play—concentration, imagination, comparison, reason. Now the exercise of these faculties is "thought," and I think it might be well for us to concentrate a few moments on this word "thought," for thinking is a fundamental of your business, as it is of mine.

In one of his great essays Thomas Carlyle cries out in exasperation "Oh, if men only would think!" If men only would think, what a wonderful think could be made of civilization. No really great attainment is realized in this world without intense thought. Beethoven thought intensely when he conceived the "Ninth Symphony." Leonardo da Vinci thought intensely when he painted his famous picture "The Last Supper." Michael Angelo thought intensely when he carved his "Moses." Darwin thought intensely when he developed and wrote his "Origin of Species." Edison thought intensely when he invented the incandescent light. Marconi thought intensely when he developed the idea of radio activity. Cass Gilbert thought intensely when he conceived the Woolworth Building. You and I must think intensely if we are to be of service in our professions. We must push our imaginations out into the unknown and incite them to curiosity, the finding out of the "why" and the "wherefore" of things.

So in the industrial and statistical department of a modern bank we contemplate industries and wonder at first why some are

successful and some so unprofitable. Such wonderment leads inevitably to reason, and reason to the reduction of our thoughts to the action analysis.

We discover for instance that overproductive capacity is a cause of unprofitable industrial operation. What causes overproductive capacity?

It is a characteristic of the mind to reason back from the effect to the cause, for in the beginning of our analysis we see the effect, but we do not know the cause. Therefore, we endeavor to apply first principles of thought so as to conceive the beginning of an industrial unit.

We think along some such common sense line as this. A man has $1,000,000 safely invested, paying him an income of 4%, or $40,000 a year. He is not satisfied with the return. He desires to go to work with his $1,000,000 and make it earn 10% and pay him a fair salary besides. He decides to become a manufacturer. He selects a product for manufacture, builds and equips a plant, sets aside a certain amount for working capital, arranges credit accommodations at his bank and begins operations. Now do not let us forget that that man's original thought is to earn 10% on his invested capital.

He makes sales of his product, which is a competitive one, and he quickly discovers that on the basis of his operating and management costs he can sell this product only on a basis that will yield him a net operating profit on his sales of 5%, that being the best practice in his industry. It is inevitable, therefore, that his sales must be $2,000,000 a year if he is to earn 10% on his invested capital.

His business thrives and he finds that he can sell $5,000,000 a year if he had more capital and a larger plant and organization. So he organizes a corporation, sells stock to the public, pays himself a larger salary as president and continues to grow.

It has been my experience that this man and his organization, almost without exception, forget within a short period of years all about what their company is earning on its invested capital, but concentrate on increasing the ratio of earnings on sales. Their action in this regard is not subject to practical criticism if the business prospers and the ratio of earnings on the sales is such as to provide satisfactory dividends and add to the capital account.

But when the ratio falls and continues to fall, larger volume is sought in order to carry the rising overhead. Bricks and mortar are piled upon bricks and mortar. Preferred stocks are sold to provide more bricks and mortar and machinery, and then bonds are sold for the same purpose.

A great capital structure is erected and sales are pushed with feverish activity and at an increasing ratio of expense to bolster up this capitalization. Presently it is found that dividends cannot be paid on the common stock. Then dividends are passed on the preferred stock with great regret expressed in the annual report to the shareholders.

Now the industry is working for the bondholders and to provide a living for the management organization, with the generous hope, however, of returning to a dividend basis, if only a sales volume can be attained sufficient to reduce costs to such an extent that a profit can be made over and above the fixed charges.

At this point it is inevitable that the corporation will discover that its competitors have been following for years the same hopeful expanding program that it has followed, and that sales cannot be expanded further because there is *an overproductive capacity in the industry* as a whole.

Simple, is it not—this final deduction?

By the exercise of thought, therefore, the industrial and statistical department of a modern bank is able to state intelligently one reason for the overproductive capacity existing in this country, and to conclude that it is vital in every system of management control to set up earnings on invested capital side by side with earnings on sales in the monthly analytical financial statement.

It does not require much brain power to think that if, from the very beginning of this corporation we have been discussing, the earning power of the business on invested capital had been set up at least yearly in a parallel column with earnings on sales, that it surely would have been discovered early in its industrial life, that the earnings on invested capital were not sufficient in reality and in reasonable expectations to justify additions to plant and organization and that, if continued, the business must be operated under the reins of a strict financial control in expectation of better times or new developments, or be liquidated forthwith.

There is a story in the New Testament about a certain barren fig tree that stood by the wayside along which Jesus passed with his followers. You will remember what he said as he contemplated that non-dividend paying fig tree, "Cut it down and cast it into the fire."

An industrial corporation that does not earn better than savings bank interest on its invested capital over a reasonable period of years, is a bad investment, a bad competitor and a menace to industrial health.

Probably in a majority of cases it should not be cut down or liquidated, but it should be promptly reorganized and reconstructed, scraped and cleaned, all its dead and cancerous affiliations and growths got rid of by a major operation and brought back to a condition where it can earn a fair return on the invested capital allotted to it.

We have thus thought out one cause of existing overproductive capacity, a cause perhaps which is not generally understood and appreciated.

There is another cause, however, a perfectly obvious one to the man who thinks and analyzes, but relatively few business men, manufacturers in particular, give it the attention it deserves. It is the organization of new manufacturing businesses and the ex-

tension of existing factories before making analytical and intensive studies of the potential markets for their products. I have previously touched upon this point. I now emphasize it.

Faith, not ascertained facts, is the basis of such enterprises. You have heard men say and I have heard men say: "We are going into a period of good times. Let us enlarge out manufacturing facilities." Faith! It's a beautiful psychic attribute of humanity. "Never go short of the United States."

The honest truth is, gentlemen, that in the past the natural advantages of this country have been so rich in quality and so generously diversified that it did not require much thought to become a millionaire in the manufacturing business.

With the exception of comparatively short periods of depression, a seller's market has existed in this country since old Samuel Slater built a textile mill in Rhode Island in Colonial times.

But that seller's market is no more. We are in a buyer's market for some time to come at least, and the thought now of manufacturers must be concentrated on the merchandising of the product, and not on building more mills and equipping them with the last word in automatic and semi-human machinery, except that such machinery shall replace old-style machinery and thus effect a saving in manufacturing expense.

One of the largest textile manufacturers in this country came in to see me a couple of weeks ago. He is a very old personal friend and, being always pressed for time, wastes few words. "I told our folks up the street this morning," he said tersely, "that we are in a hand-to-mouth market for some years to come. The retailer has learned how to buy at last and we shall have to continue to sell him on his terms. He is not coming into see us to place a season's order any more. We must go out and sell to him. I recognize that this condition exists. I want you also to recognize this fact and then we'll start out all over again to regain the place in the textile industry which we have lost as manufacturers."

"How," I inquired eagerly.

"By becoming great merchants," he replied. "We have the brains. We have the money. We will add initiative and invention, which means styling, and we will change our lines over to meet these new conditions and create such a market for our products that the retailer once again shall have to eat out of our hand. And I, for one," he added, with a flourish of his right hand, "welcome the change."

Now that man had snow-white hair and was at least seventy years of age. Wonderful! These American business men who think, and numbers of them are thinking very hard at present.

I am not wrong about this phase of our industrial system. I have confirmed what I have said to you from many reliable sources. We are entering upon a great merchandising age and it will be an age of progress, an artistic age, an age of fine and highly skilled craftsmanship. The manufacturer who hasn't heard the news and continues to grind out production on a quantity basis will wake up

one of these days to find myself in a new world whose language he does not speak.

It is obvious that even in the United States the wheat farmer could not go on forever being simply a grower of wheat. Nature will not permit it. He must diversify and find a system for the better merchandising of his product.

It is obvious that there is a limit to the print cloths that this country can consume.

It is obvious that with increased education and wealth the American people will demand, as now they are demanding, better quality and more variety in the goods they purchase. Take the item of boots and shoes. The old-style manufacturer thinks people have become fantastic, the ladies in particular, that their tastes are absurd. He can make no money manufacturing so great a variety of shoes. His plant is not geared up to it.

Is he right, or are the ladies right? "Whatever is, is right" is good merchandising law. That is the answer.

It is obvious, therefore, that manufacturers must adapt their factories, their products and their merchandising methods to current customs and conditions, and in doing this, their first task is to make an exhaustive study of sales conditions and flavor the work with a little psychology.

Have you noticed that within the year of grace 1924, just passed, certain automobile manufacturers decided to make their forecasts and budgets on the basis of actual sales to consumers and not upon the always optimistic general sales manager's forecast of sales to distributors and dealers?

Such a sound procedure for the control of production and the consequent control of inventories and commitments, if generally adopted in this great industry, would result in pronounced benefits of nation-wide significance.

To illustrate this let us consider the influence exerted by one of our larger automobile manufacturing corporations on the industrial situation. This particular corporation has about three thousand material suppliers. Having studied and analyzed the sales possibilities for the coming year, a sales forecast is made based upon consumer demand, and a budget for the year is set up in which a production schedule is adopted covering a definite operating program with the necessary purchase commitments for a fixed period, say three months.

Definite purchases are made for material requirements through this period. At the same time the material suppliers have notice either formally or informally of the possible material requirements of the budget over the remainder of the year subject, of course, to correctional changes incident to fluctuations in consumer demand as the year progresses. Each supplier, therefore, can make his own sales forecast and budget, and base his forward material commitments on an intelligent program, as far at least as his business with this particular corporation is concerned.

The far reaching importance of this is recognized when we

consider that each of the three thousand suppliers who directly serve this automobile corporation, calls in turn upon a larger number of suppliers to furnish him with the raw materials and other essentials incident to their production. It is evident that the influence of the automobile corporation's sales forecast reaches back to the iron regions, the coal, copper, zinc, lead and silver mines, to the forests and up through the steel factories, smelters, glass factories, machine tool makers and on through a myriad of converters and assemblers.

And exactly in proportion as the automobile corporation controls its inventories and commitments may these many suppliers control their inventories and commitments, and thus protect themselves from the dreaded scourge of excess inventories, which is one of the certain symptoms of our recurrent periods of industrial depression.

I have barely touched on this important subject just to give you a thought which, if you give it lodgment in your mind, will provoke you to follow the ramifications of inventory and commitment control through all its devious ways until you shall get a matured, intelligent suggestion that will apply to the particular industry engaging your attention.

If you will look about you, you will find that in practically every industry intense thought is being given to this matter of inventory control, and manufacturers and merchants are discovering that, as a result of the close study they are giving to this subject, the ratio of their turnover is steadily increasing.

This is truly an age when important things are happening, and he who is wise in these days of change will train his eye to look into the future and reveal through the mind what they see there.

Undoubtedly the most interesting work that an industrial department performs is that connected with the reorganization of industrial companies. Such reorganization work may originate in any of the main departments of a great financial institution, the banking department, the trust department or the investment department.

It is most interesting to me because each reorganization present a new problem and offers the opportunity for the exercise of originality. Moreover such work is highly constructive, and each of us prefers to build up rather than to destroy.

Bankers are just as human as doctors. Both appear stern and somewhat callous when advising a major operation, but both have hearts of flesh and blood. They are merely men trying to do their duty in an efficient way. It is said that the old banker, like the old physician, ceases to moralize on the shortcomings of his fellowmen after he has exercised his profession many years. I am growing old, and yet at no period in my life were the problems of industry of greater interest to me than at present, and I know I shall never cease wondering why seemingly intelligent men will persist in so many cases in conducting their businesses unintelligently. It is my nature that I shall never give up advocating and trying to make

plain the common sense system of management control so that businesses cannot go wrong without everyone in the shop and in the bank knowing about it.

What is this common sense system of management control? Simply the forecast, the budget based on the forecast, the cash statement of income and disbursements tying into the budget, and the monthly analysis of operations finding reflection in a correctional forecast and budget if current operations get much out of line with those predicted. I repeat, and keep repeating, this formula. I believe fully in its application for I have seen it in operation in both successful and unsuccessful corporations.

I have in mind now a practical illustration which should prove interesting to you. Two years ago a reorganization committee of bankers, of which I was one, had in hand the problems of reorganizing or liquidating a large industrial corporation which overexpanded in the post-war period, piled up excessive inventories and built plants, which it was found later could not be used in profitable operation.

We convinced ourselves, after exhaustive study, that the assets of this corporation were of such a character that they could not be liquidated without excessive loss. We studied the sales outlook of the product, became convinced that we had a product the demand for which was diminishing, discounted the sales estimate of the sales department by a liberal percentage in view of this fact, and made a sales forecast and a budget based on the theory of continuing operations on a basis that at least would conserve the working capital, even if no considerable profit could be made. Thus we hoped to hold the proposition intact until some way was discovered either to operate at a profit or to liquidate to advantage.

"No red ink," was the final instruction given the management. Now red ink had been a flowing well in this corporation for several years. The proposition put up to the management of operating under such a rigid control as would avoid a loss, was no easy one. The system of control which I have outlined briefly was employed.

On March 1 of last year the reorganized corporation commenced business under this plan and has now operated a little over ten months. During this period the monthly sales have been less than the monthly forecasts, and in certain months they have been distinctly disappointing. The curve in this industry is most decidedly downward and our competitors are suffering like ourselves.

But the rigid sales dollar control system has stood firmly at the helm. Controllable expenses have been cut ruthlessly to conform to the decline in the sales volume. Economies have positively been forced. Plants or divisions have been shut down or reopened, as conditions required, and yet the cash working capital position is a little improved.

But there are rocks ahead of us if sales do not improve, and these rocks are called "The Burden of Carrying Idle Plant

Capacity." Remorselessly cruel rocks, these. They will grind their victim to splinters in short order if it drifts upon them.

Accountants differentiate this item many times from the current operating expense and carry it forward in an accumulating total under the title "Unabsorbed Burden."

In my reorganization work in industrial corporations I have come to have a positive horror of those two words "Unabsorbed Burden." To get rid of them I am tempted often to go too far in the way of cutting down the fig tree and casting it into the fire. How many manufacturers in your experience have treated that portion of unabsorbed burden representing idle plant and machinery as sales expense?

A portion of the plant is idle because there is not sufficient business to employ all the machinery. The carrying charge on this idle machinery and plant is an expense usually carried to the end of the year in the hope that it will be absorbed in more prosperous months, and if not, charged out to profit and loss.

The superintendent at the factory feels that this expense should not be charged against operations. He was prepared to operate all his machinery if he had the orders. So it is obvious that the expense should be charged against that department delegated to secure orders, i. e., the sales department.

And if, after every effort of merchandising has been expended, it is impossible to secure orders to operate the factory, say at 80% of capacity, the executive management has a tangible proposition to think hard about.

You observe that the law of supply and demand is nature's chief cost accountant.

You have come together this evening with a serious purpose. You are cost accountants. Your aim is to become very proficient in your business so that you will become in time comptrollers, general managers, presidents. It is to promote your progress that I have come here this evening. I want you to think over seriously what I have said to you about operating industrials under a positive system of control of costs, so responsive that in time it will become almost automatic, a system under which the ratio of earnings on invested capital shall be synchronized with the ratio of earnings on net sales.

That is the big thing that American industry needs.

Come first to an intelligent comprehension of the system as a whole and then develop the machinery for working out the detailed costs.

In my opinion the times are ripe for the extension of the Gospel of the Budget to all classes of industry. The need exists.

The need exists also to preach concentration, intensification, in this country, not expansion. I want you to help me preach it.

Let us preach the making of fewer but better goods. Let us preach efficiency through an harmonious co-ordination of every

department of a business—volume of sales, size of plant, cost of management, all co-ordinated, all balanced.

Let us preach progress and growth as the natural results of such an industrial doctrine.

Let us preach that competition is nothing but a bug-a-boo with which to scare fat, thoughtless, greedy little people; that in reality there is no competition for the merchant with an original mind and no competition for the manufacturer who is always out in front, at least a season, beyond the average of his industry.

Business can be made an exact science, but men must be intellectual if it is to be conducted on scientific principles. They need not necessarily be college graduates, but thinkers, students of economics and of human psychology.

I have learned much in the industrial and statistical work of a bank, but nothing more important than is conveyed to you in this last sentence.

I say to you in conclusion, learn to think of yourselves as artists, master craftsmen possessed of imagination, lovers of nature, thinkers, dreamers maybe, but investigators forever acquiring knowledge.

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